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ABSTRACT

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INTERNATIONAL INFORMATION TRANSFER AND SDI

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Abstract: A summary is presented of data gathered for a survey of information center services in the form of statistics for a "hypothetical typical information center." The extent of information transfer on national and international levels among the responding centers is discussed.

Selective dissemination of information (SDI) systems account for a large volume of specialized information transfer throughout the world. At the present time, many identical data bases are being processed in many different information centers, and the same data bases are being checked, reformatted, and searched via duplicative and costly efforts. We believe, however, that an informal network of cooperative arrangements between centers could reduce the burden of individual centers and permit greater specialization within centers. A recent survey[1] was carried out under the auspices of the Association of Scientific Information Dissemination Centers (ASIDIC) in order to determine which centers were handling which data bases and providing what services to whom. It is hoped that the data generated will help in the study of the ways, means, and feasibility of sharing experiences, resources, processing activities, etc., between information centers in order to standardize, simplify, and economize information center activities and to establish an informal network.

[1] Williams, Martha E. and Stewart, Alan K., ASIDIC Survey of Information Center Services. 1972.

Forty-eight publically-available data bases from the U.S., Germany, England and Austria were cited by 56 responding centers as being processed for either SDI or retrospective searches. These are listed in Table I. Of the 56 responding centers, eight were from foreign countries including England, Finland, Canada, Israel, Luxemburg, the Netherlands, and Sweden. In addition to the publically-available data bases, 32 centers reported use of internally-generated data bases or subset data bases. Of the 48 publically-available data bases the majority are used by fewer than 10 centers, and only four (CA Condensates, Chemical Titles, COMPENDEX and Government Reports Announcements) are used by 10 or more centers. The numbers indicate that, although there are quite a few organizations searching data bases, very few data bases enjoy widespread use. We have no way of determining the true numbers, as there are certainly many organizations that process tapes but are unknown to ASIDIC or did not respond to the survey. We can, however, observe trends, and the observations seem to be corroborated by the September 1971 ASIS-SIG/SDI survey results that were published in the April 1972 ASIS-SIG/SDI Newsletter. In the ASIS survey approximately 100 replies were received from individuals representing 38 organizations. The 38 organizations cited 30 data bases in use and, of the 30, three were reported as being used by 10 or more centers. Of the 38 organizations 15 were also responders to the ASIDIC survey, and some of the others appear to be organizations that are using data base services though they do not spin the tapes themselves.

While there is really no such entity, one can discuss, for purposes of summarizing results of the "ASIDIC Survey of Information Services," a hypothetical typical information center. This typical center is described in terms of the average data entries for categories in which the majority of the responding centers provided numerical data, and it represents both U.S. and foreign centers.

The hypothetical typical information center (HTIC) started providing regular current awareness service in 1967. In 1971 it provided SDI to users via 400 profiles of 26.6 terms each that are searched against publically-available data bases, thereby providing service to 3+ users for each profile processed. The HTIC handled four publically-available data bases and did not run SDI vs. internally-generated data bases (only 13 of the 56 responders provided SDI from internal data bases, and they processed an average of 817 profiles each).

The HTIC provided output on paper listings and made multiple copies available as needed. A few provided 2-part card output, single card output, and made output available on tape, COM, or multilith masters. Printout from the HTIC contained bibliographic citations, keywords, abstracts when available, and user ID number with each citation.

The HTIC provided retrospective search services from publically-available data bases but not from internally-generated data bases, nor did it conduct manual searches. In 1971 it processed 606 retrospective search questions of 17.25 terms each against the public data bases in an average turnaround time of 6.6 days.

Although 30% of the responding centers use remote terminals for any of the following: writing profiles; updating profiles; negotiating questions; entering questions; or distributing output; the HTIC did not.

The HTIC did not receive any sort of feedback or evaluation from users via formal mechanisms even though 34% of the centers used feedback cards, 30% evaluation forms, and 18% questionnaires. Where feedback techniques were used, 44% of the users completed and returned the forms to the center.

The HTIC provided individual consultation with users upon request and provided manuals for users. Whereas the HTIC does not give seminars or workshops, 20% of the centers provided

scheduled seminars, 30% provided seminars on demand, and 34% provided workshops for profile preparation.

The HTIC search system allows use of weighted profile terms with truncation and uses Boolean nested logic.

The HTIC reformats incoming data bases prior to searching and conducts its searches on an IBM 360-370 series computer.

Its software is written in a compiler language--(Of the total center responses the compiler language most frequently used was PL/1 (23%), followed by FORTRAN (16%), COBOL (14%), and GMAP 2%))--and the HTIC makes its software available to other organizations.

Although the HTIC is in the United States, nine of the 56 responding centers are foreign. The list of publically-available data bases processed includes eight data bases from five foreign sources; only one of these data bases was not used by a U.S.-based center.

Table II lists, for the ASIDIC full, associate, and non-member centers that responded, search and output system features that distinguish the operations of these organizations.

In conclusion, even though some international cooperation between information centers and data base suppliers is evident, the HTIC appears to operate its SDI system largely without the advantages of extensive sharing of information. ASIS, ASIDIC, and other groups that stress cooperation nationally and internationally have a large task ahead in developing more interchange between concerned organizations. One effort along these lines is the liaison and cooperation experienced between ASIDIC and its European counterpart, EUSIDIC. EUSIDIC and ASIDIC send representatives to each other's meetings. The member centers that belong to these organizations share common problems of inadequate standards, legal considerations, etc. due to their searching the same data bases, so dialogue between centers is both natural and productive. We believe that such exchange of

information is the first step in the development of an international community of data base suppliers, information centers, and users that will work to benefit all involved.

Table I

Publically-available Data Bases Processed by Responding Centers

Abstract Bulletin of the Institute of Paper Chemistry
Abstract Bulletin of the Institute of Paper Chemistry, Keyword Supplement
Air Pollution Abstracts
API Abstracts of Refining Literature
API Abstracts of Refining Patents
BA Previews
Basic Journal Abstracts
Bibliography of North American Geology
CA Condensates
CA Integrated Subject File
CAIN
Chemical-Biological Activities
Census Tapes
Central Patents Index--Minitapes
Chemical Titles
CITE
COMPENDEX
DDC
ERIC
EXERPTA MEDICA
Food Science and Technology Abstracts
Geophysical Abstracts
GEO·REF
Government Reports Announcements
Index Chemicus Registry System
Information for Industry
International Nuclear Information System
Import Special Information Services
ISI Source Tapes
ISIS Source and Citation Tapes (ASCA)
INSPEC
MARC
MEDLARS
METADEX
NASA
Nuclear Science Abstracts
PANDEX
PESTDOC
Polymer Science and Technology
Psychological Abstracts
RINGDOC
S.E.A.R.C.H. - DATA
Selected Water Resources Abstracts
Sociological Abstracts
SPIN
Textile Technology Digest
VETDOC
World Textile Abstracts

Table II

SUMMARY OF INFORMATION CENTER SEARCH AND OUTPUT CHARACTERISTICS

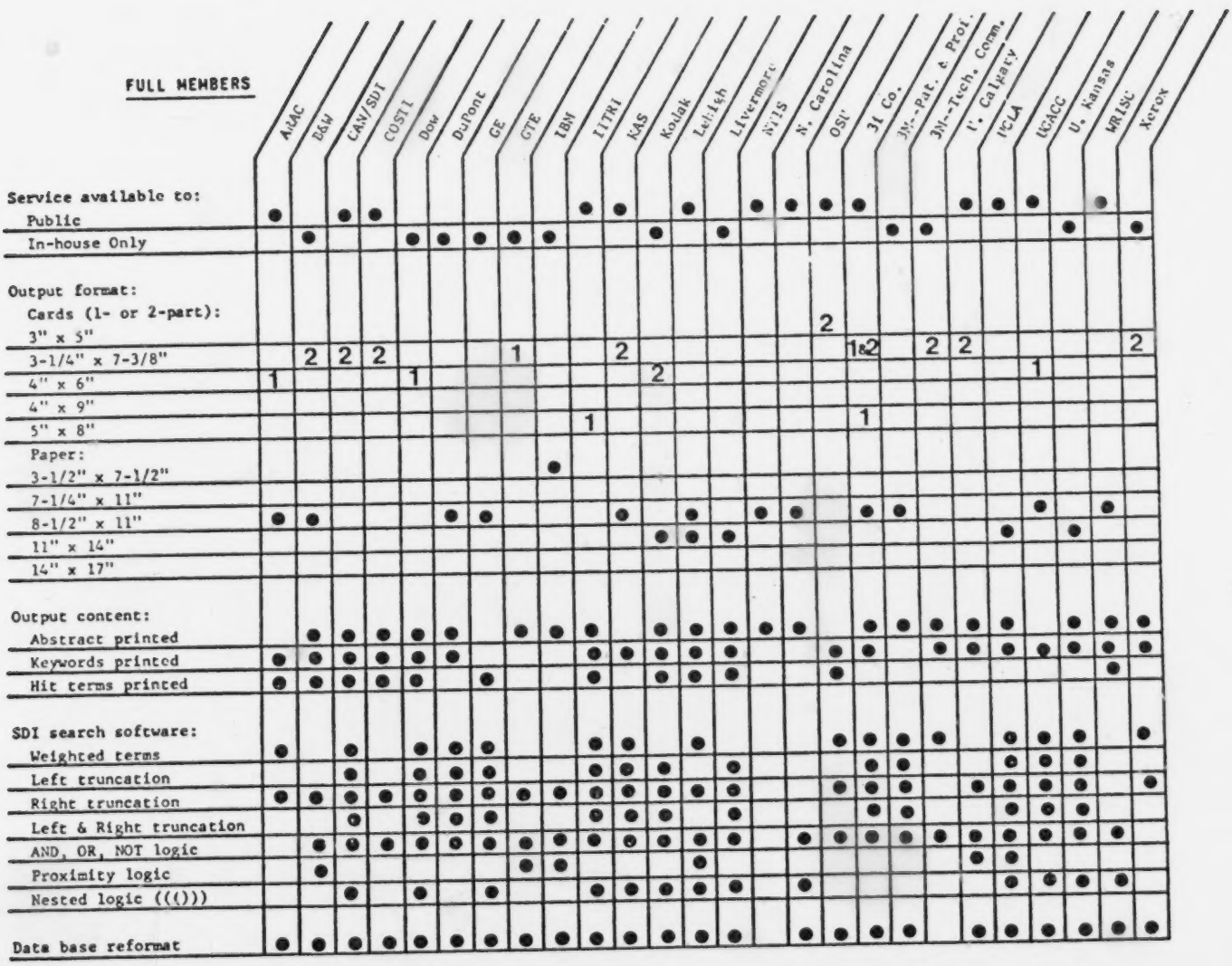

Table II (continued)

SUMMARY OF INFORMATION CENTER SEARCH AND OUTPUT CHARACTERISTICS

ASSOCIATE MEMBERS

	AIP	ASM	BA	CID/ENDS	CTC	DLO/DEF	Iowa	GEO-REF	Johns Hopkins	Karolinska	MIT	Northwestern U.	ORNL/SIS	SIE	SNF	U. Louisville	U. Nebraska	U. Virginia
Service available to:																		
Public	●	●	●	●	●	●	●	●		●			●	●		●		
In-house Only									●		●	●			●		●	●
Output format:																		
Cards (1- or 2-part):																		
3" x 5"																		
3-1/4" x 7-3/8"	1						1											
4" x 6"				1														
4" x 9"																		
5" x 8"			1		1								1					
Paper:																		
3-1/2" x 7-1/2"																		
7-1/4" x 11"							●											
8-1/2" x 11"	●	●					●		●		●		●					
11" x 14"			●		●	●					●	●	●	●	●	●	●	●
14" x 17"		●																
Output content:																		
Abstract printed					●	●			●		●		●					
Keywords printed	●		●		●		●	●	●	●	●	●	●	●		●		
Hit terms printed	●				●	●	●	●			●					●		●
SDI search software:																		
Weighted terms	●		●		●			●					●			●		●
Left truncation	●		●					●		●	●		●		●	●		
Right truncation	●		●		●			●		●	●		●		●	●		
Left & Right truncation	●		●					●		●	●		●		●	●		
AND, OR, NOT logic	●	●	●	●	●		●	●	●	●	●		●		●	●	●	
Proximity logic									●		●						●	
Nested logic ((()))	●	●		●	●		●	●	●	●	●				●		●	
Data base reformat	●	●	●	●					●	●	●		●					

Table II (continued)

SUMMARY OF INFORMATION CENTER SEARCH AND OUTPUT CHARACTERISTICS

NON-MEMBERS	Abbott	ARS/USDA	DCRT	FDA	Finland	HRIS	IPC	MRIS	Netherlands	Oxford	TRIS	TRAIS	UKCIS	WJSKAC
Service available to:														
Public				●		●	●	●		●		●	●	
In-house Only	●	●	●	●		●			●		●			
Output format:														
Cards (1- or 2-part):														
3" x 5"														1
3-1/4" x 7-3/5"														
4" x 6"								1				1		
4" x 9"				1&2										
5" x 8"														
Paper:														
3-1/2" x 7-1/2"														
7-1/4" x 11"														
8-1/2" x 11"	●	●				●	●	●			●	●	●	●
11" x 14"		●	●	●				●			●	●		
14" x 17"														
Output content:														
Abstract printed		●	●	●		●	●	●	●		●	●		●
Keywords printed		●	●	●	●	●	●	●	●					●
Hit terms printed			●		●	●	●						●	
SDI search software:														
Weighted terms		●		●					●					
Left truncation		●	●	●			●		●				●	
Right truncation		●	●	●	●		●	●	●		●	●	●	
Left & Right truncation		●	●	●			●		●				●	
AND, OR, NOT logic	●	●	●	●	●	●	●	●	●		●	●	●	●
Proximity logic													●	
Nested logic ((()))		●	●	●	●	●	●	●			●	●		
Data base reformat		●	●		●		●						●	●